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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,985	03/31/2004	Neal R. Rueger	102-0102US	1278

29855 7590 11/02/2006

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EXAMINER

KACKAR, RAM N

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/814,985

Applicant(s)

RUEGER, NEAL R.

Examiner

Ram N. Kackar

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 and 44-70 is/are pending in the application.
- 4a) Of the above claim(s) 2, 12 and 44-70 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-11 and 13-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 24-43 and 71-97 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention. Election was made **without** traverse in the reply filed on 3/27/2006.
2. On further consideration it is noted that this application contains claims directed to the following patentably distinct species of the claimed invention:
 - Species A directed to an apparatus for analysis of a gas using a reference gas.
 - Species B directed to an apparatus for analysis of a gas using a probe.
3. Applicant is required under 35 U.S.C. 121 to elect a single disclosed specie for prosecution on the merit to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently no claim is generic.
4. During a telephone conversation with Mr. Terril Lewis on 10/4/2006 a provisional election was made with traverse to prosecute the invention of Species A, claims 1, 3-11 and 13-23. Affirmation of this election must be made by applicant in replying to this Office action. Claims 44-70 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3-11 and 13-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gary Powell (US 6538734).

Gary Powell discloses an excitation chamber (105) connected to a reaction chamber (101) for deposition or etch (Col 1 lines 10-20) for assisting in the analysis of at least one processing gas (sample gas) with a reference gas which is included with sample gas (Abstract), a cylindrical cavity for receiving the processing gas (Fig 2-235) and a reference gas (Col 1 line 33-37, Col 7 lines 31-40 and Col 8 lines 7-14). The sampled gas could be representative of exhaust gas (Col 2 lines 7-14). Further disclosed is an energy source coupled inductively to the excitation chamber for excitation of the gas (203), flange for processing gas (Fig 2-221), window for monitoring the plasma (237), fiber optics (208), a computer (112) to receive and analyze the spectrum and to control (Abstract). The process could be plasma or non-plasma (Col 7 lines 31-40).

Regarding inlet port for reference gas Gary Powell is silent about this feature. However there is no uncertainty that the plasma in excitation chamber needs a reference gas for the disclosed analysis of process gas as taught. Therefore having a physical inlet is either inherent or at least obvious.

Having a dedicated input for reference gas has the obvious advantage that a self contained unit with a dedicated port could be designed for any number or type of reference gases and could be attached to any process chamber without any modification to it, since on a process chamber gas inlet ports are generally specific to a certain process.

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This advantage would be apparent to any one with ordinary skill in the art at the time of invention. Therefore having a dedicated inlet for reference port would have been obvious for one of ordinary skill in the art at the time of invention.

Response to Arguments

Applicant's arguments filed 8/29/2006 have been fully considered but they are not persuasive.

Applicants argue that the description of Fig 10 (Col 7 lines 31-38) discloses that reference gas was introduced in the reaction chamber and not the excitation chamber. It is not understood by this how the applicant could draw this conclusion. There are many ways a test could be run to prove the essential teaching. The essential teaching being that the sample to be analyzed is mixed with the reference gas before being presented to the plasma for excitation and generation of optical spectra.

Applicant further argues that in claim 71 reference gas is introduced in a reaction chamber.

Regarding this argument it is noted that all these claims including claim 71 are method claims and there may be many ways an apparatus could be used (methods). The fact that an apparatus is used in a certain way does not impose structural limits on the apparatus itself.

Further, nothing in this reference teaches that the reference gas could not be mixed with sample gas in the excitation chamber. It is noted here that the description of Fig 10 clearly says that during the test, there was no plasma in the reaction chamber, meaning thereby that Argon

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which is an inert gas would pass through the reaction chamber unaltered. Functionally this means that there is no inhibition on reference gas flowing directly to the excitation chamber.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ram N. Kackar whose telephone number is 571 272 1436. The examiner can normally be reached on M-F 8:00 A.M to 5:P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571 272 1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Ram Kackar
Primary Examiner AU 1763